

## ID Turning tool with dxQ Profile

A17-010

This turning tool with excentric shaft is used for turning small pieces on high precision lathe machines. The tool is ground out of a blank with Ø3x40mm. To speed up the grinding process and reduce the wheel wear, 3 sides had been preground using profiled 1A1 wheel. The excentric shaft is used to be ground with a wider wheel to fit the lenght requirements and to grind it in one shot. The grinding time can be considerably reduced by using rougher pregrinding wheel.



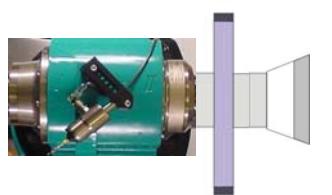
### 1. Cycletime for Production

Workpiece: Ø 3 mm Material: carbide										
Operations										
Feed [mm/Min]	2000	70	100	70	35	45	35	55	35	100
No. Of cycles		1	1	1	1	1	2	2	1	2
Cutting feed [m/s]		32	32	24	24	24	32	32	32	32
Used wheels										
Grinding time [s]	10	25	25	35	30	30	55	55	30	120
Total cycle time	<b>6.92 min</b>									

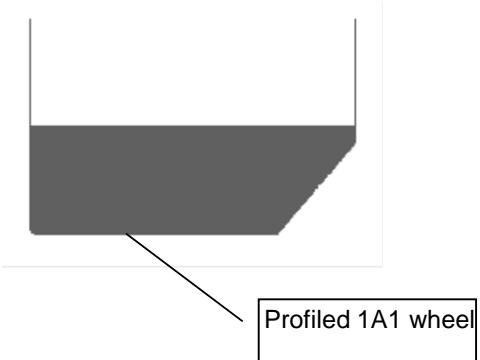
The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

### 2. Used Grinding Wheels

1	1A1 Ø125 D64 90°
2	11V9 Ø75 D76 70°



1      2



### 3. Machine and Software Requirements

Machines: 5 axes CNC grinders : NORMA CFG / Gemini DMR

Coolant: Synthetic Oil, pressure 6 bar

Control: Fanuc 31i

Software: Quinto 5

Accessories:

Responsable engineer: SIW, 21.12.2009

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